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**FULL TEXT OF CASES (USPQ FIRST SERIES)**  
In re HOEKSEMA, 158 USPQ 596 (CCPA 1968)

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**In re HOEKSEMA**

**(CCPA)**

**158 USPQ 596**

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**Decided Aug. 8, 1968**

**No. 7778**

**U.S. Court of Customs and Patent Appeals**

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**Headnotes**

**PATENTS**

**1. Rehearing and reopening—In general (§ 57.1)**

Court of Customs and Patent Appeals grants rehearing because of continuing importance of questions involved and strong suggestion of error in its earlier opinion.—In re Hoeksema (CCPA) 158 USPQ 596.

**2. Patentability—Composition of matter (§ 51.30)**

Process obviousness is relevant in deciding compound obviousness.—In re Hoeksema (CCPA) 158 USPQ 596.

**3. Patentability—Invention—In general (§ 51.501)**

In context of 35 U.S.C. 103, court is not permitted to fragment a claimed invention in applying that section; invention must be considered as a whole.—In re Hoeksema (CCPA) 158 USPQ 596.

**4. Patentability — Composition of matter (§ 51.30)**

Claimed compound is the invention as a whole (35 U.S.C. 103), but, so considered, unless there is some known or obvious way to make compound, invention is nothing more than a mental concept expressed in chemical terms and formulae on a paper; invention as a whole is claimed compound and a way to produce it; since there is no showing that claimed compound can exist because there is no showing of a known or obvious way to manufacture it, the invention as a whole is not obvious under section 103.—In re Hoeksema (CCPA) 158 USPQ 596.

**5. Patentability — Anticipation — In general (§ 51.201)****Patentability — Invention—In general (§ 51.501)**

Conditions for patentability, novelty and loss of right to patent, stated in 35 U.S.C. 102, may have relevance as to disclosure which must be found in prior art to find obviousness of invention under section 103; in determining that quantum of prior art disclosure which is necessary to declare applicant's invention "not novel" or "anticipated" within section 102, test is whether reference contains an enabling disclosure; this test applies to issues under section 103.—In re Hoeksema (CCPA) 158 USPQ 596.

**6. Patentability—Composition of matter (§ 51.30)**

If prior art fails to disclose or render obvious a method for making claimed compound, at time invention was made, it may not be legally concluded that compound itself is in possession of public; absence of known or obvious process for making claimed compounds overcomes presumption that compounds are obvious, based on close relationships between their structures and those of prior art compounds.—In re Hoeksema (CCPA) 158 USPQ 596.

**7. Pleading and practice in Patent Office—Rejections (§ 54.7)**

Patent Office having cited reference which rendered claimed compounds prima facie obvious, applicant sustained burden of going forward with contrary evidence by filing affidavit pointing out that reference does not disclose process for producing claimed compounds, thus overcoming Office's position as to reference's legal effect under 35 U.S.C. 103; thereupon, burden of going forward with proofs to support its position as to obviousness shifted to Office; Office's failure to produce such evidence requires that rejection be reversed.—In re Hoeksema (CCPA) 158 USPQ 596.

**Particular patents — 9-D-Psicofuranosylpurine**

Hoeksema, 9-D-Psicofuranosylpurine and 6-Substituted Derivatives, claim 1 of application allowed.—In re Hoeksema (CCPA) 158 USPQ 596.

**Case History and Disposition:**

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Appeal from Board of Appeals of the Patent Office.

Application for patent of Herman Hoeksema, Serial No. 30,770, filed May 23, 1960; Patent Office Group 120. From decision rejecting claim 1, applicant appeals. Affirmed at 154 USPQ 169. On petition for rehearing. Reversed; Kirkpatrick, Judge, dissenting with opinion.

**Attorneys:**

EARL C. SPAETH (EUGENE O. RETTER and GEORGE T. JOHANNESSEN of counsel) all of Kalamazoo, Mich., for appellant.

JOSEPH SCHIMMEL (JACK E. ARMORE of counsel) for Commissioner of Patents.

**Judge:**

Before WORLEY, Chief Judge, RICH, SMITH, and ALMOND, Associate Judges, and KIRKPATRICK, Judge. \*

**Opinion Text**

**Opinion By:**

SMITH, Judge.

[1] In our prior consideration of this appeal, we affirmed the decision of the Patent Office Board of Appeals, which had affirmed the examiner's rejection of the sole remaining claim of appellant's application, <sup>1</sup>In re Hoeksema, 54 CCPA 1618, 379 F.2d 1007, 154 USPQ 169 (1967). Because of the continuing importance of the questions involved, and the strong suggestion of error in our earlier opinion, we granted appellant's petition for a rehearing under the provisions of Rule 7 of this court, 55 CCPA—, (October 5, 1967).

The parties filed new briefs, and the case was reargued on January 3, 1968. Upon reconsideration of our previous decision, we have concluded that our previous decision was erroneous and that a proper resolution of the issues requires that we *reverse* the decision of the board.

The facts are set forth in our original opinion. We shall assume familiarity with that statement of facts and shall here redevelop only those which we now believe were previously misapprehended or misapplied and require the present decision.

The sole claim on appeal is directed to a chemical compound and reads as follows:

1. An N-psicofuranoside having the formula:

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wherein A is selected from the class consisting of hydrogen, the group -XR wherein R is selected from the class consisting of hydrogen, lower-alkyl, and lower-aralkyl, and X is selected from the class consisting of oxygen and sulfur, and the group

*Graphic material consisting of a chemical formula or diagram set at this point is not available. See text in hard copy or call BNA PLUS at 1-800-452-7773 or 202-452-4323.*

wherein R<sub>2</sub> is selected from the class consisting of hydrogen, lower-alkyl, lower-aralkyl, and lower-aryl, and R<sub>3</sub> is selected from the class consisting of lower-alkyl, lower-aralkyl, and

lower-aryl, and R<sub>4</sub> is selected from the class consisting of hydrogen, a hydrocarbon carboxylic acid acyl radical containing from two to twelve carbon atoms, inclusive, and a halo-, hydroxy-, lower-alkoxy-, amino-, cyano-, thiocyno-, and nitro-substituted hydrocarbon carboxylic acid acyl radical containing from two to twelve carbon atoms, inclusive.

That claim stands rejected under 35 U.S.C. 103 as unpatentable over prior art, on this record limited solely to the De Boer et al. patent <sup>2</sup>(De Boer) which discloses a compound with the structural formula:  
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As we noted in our original opinion, the controversy here is limited to the substituent A at the 6-position of the purine ring system. Although a compound having De Boer's structure is not included in the appealed claim since A in the claim cannot be an unsubstituted or primary amino,  
*Graphic material consisting of a chemical formula or diagram set at this point is not available. See text in hard copy or call BNA PLUS at 1-800-452-7773 or 202-452-4323.*  
 , the basic structure of the De Boer compound is similar to the structure of appellant's alkylamino and dialkylamino compounds. <sup>3</sup>

Despite this close structural similarity between the De Boer amino compound and the alkylamino and dialkylamino compounds included in the appealed claim, appellant chose not to submit a showing of unexpected properties in his claimed compounds. <sup>4</sup>Appellant asserted that his compounds were unobvious and patentable without such a showing. He urged that De Boer does not teach one of ordinary skill in the art how to make appellant's claimed compounds, and the examiner did not cite any other reference telling how they might be made. Therefore, in appellant's view, his claimed compounds are not in possession of the public, *In re Brown*, 51 CCPA 1254, 329 F.2d 1066, 141 USPQ 245 (1964). <sup>5</sup>

In support of his position, appellant submitted an affidavit by Dr. Paul F. Wiley relating to the unavailability to the public of processes for preparing appellant's alkylamino and dialkylamino compounds. <sup>6</sup>Dr. Wiley's qualifications

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and competence as an expert to state facts and opinion in this area of chemistry were not challenged.

Regarding the Wiley affidavit, the examiner stated, in his Answer:

The affidavit \* \* \* does not appear to be pertinent to the claim now on appeal because it is directed to the processes by which the De Boer et al. and appellant's compounds are prepared, and shows nothing unobvious for the instantly claimed compound.

Concerning the Wiley affidavit, the board cited a statement of this court in *In re Riden*, 50 CCPA 1411, 318 F.2d 761, 138 USPQ 112 (1963), to the effect that "the method of making the compounds is a relevant fact to be considered in the question of obviousness of the compounds," 50 CCPA at 1415, 318 F.2d at 764, 138 USPQ at 114-115. But the board continued:

\* \* \* This may be so but it is only one factor and, in our opinion, should never be the overriding one which appellant is here, in effect, urging.

Appellant states the first of two central questions to be decided in this rehearing as follows:

1) Appellant will admit his compounds are obvious and unpatentable *if* an obvious process is available to make them. Does it follow then that appellant's compounds are unobvious and patentable if an obvious process is *not* available to make them?

[2] Within this context, appellant simplifies that question to: Is process obviousness relevant in deciding compound obviousness? <sup>7</sup>

The solicitor responds to the latter characterization of the question in the affirmative, pointing out that the first question bears on the principle implicit in *In re Brown*, supra, that claimed compounds not distinguished in their properties over closely related prior art compounds are unpatentable thereover where the claimed compounds would be "in possession of the public" in that a process for preparing them would be obvious to those of ordinary skill in the art.

In addition, the solicitor now refers to our prior opinion in which we noted that the facts in this case are closely analogous to those of *In re Riden*, supra, where we stated that the fact that the method of making the claimed compound is relevant, 54 CCPA at—, 379 F.2d at 1010, 154 USPQ at 172.

A recurring problem of analysis which confronted us as we prepared our previous opinion, and which still confronts us after the rehearing, has its genesis in a proper understanding of the issue as framed by appellant. In effect, appellant agrees that since the claimed product is a homolog of a known compound, it would be prima facie "obvious" under 35 U.S.C. 103. But this agreement is conditioned on the proviso that there is in the prior art an "obvious" process by which to make that compound.

[3] In the context of section 103, we are not permitted to fragment a claimed invention in applying that section. The clear mandate of the statute which governs our analysis requires that

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we consider the *invention as a whole* in making the determination.

[4] Thus, as we apply the statute to the present invention, we must ask first, what is the invention as a whole? Necessarily, by elementary patent law principles, it is the claimed compound, but, so considered, unless there is some known or obvious way to make the compound, the invention is nothing more than a mental concept expressed in chemical terms and formulae on a paper.

We are certain, however, that the invention as a whole is the claimed compound *and* a way to produce it, wherefore appellant's argument has substance. There has been no showing by the Patent Office in this record that the claimed compound can exist because there is no showing of a known or obvious way to manufacture it; hence, it seems to us that the "invention as a whole," which section 103 demands that we consider, is not obvious from the prior art of record.

While there are valid reasons based in public policy as to why this defect in the prior art precludes a finding of obviousness under section 103, *In re Brown*, supra, its immediate significance in the present inquiry is that it poses yet *another difference* between the claimed invention and the prior art which *must* be considered in the context of section 103. So considered, we think the differences between appellant's *invention as a whole* and the prior art are such that the claimed invention would not be obvious within the contemplation of 35 U.S.C. 103.

[5] While 35 U.S.C. 102 is not *directly* involved in the issue on review, the conditions for patentability, novelty and loss of right to patent, there stated, may have relevance as to the disclosure which must be found in the prior art to find obviousness of an invention under section 103. In determining that quantum of prior art disclosure which is necessary to declare an applicant's invention "not novel" or "anticipated" within section 102, the stated test is whether a reference contains an "enabling disclosure," in the present context, a process by which the claimed compound could be made. In *In re LeGrice*, 49 CCPA 1124, 301 F.2d 929, 133 USPQ 365 (1962), we observed that the resolution of this issue required us to determine whether, *as a matter of law*, a reference without such a disclosure constituted a statutory time bar to an applicant's right to a patent. There, the issue was founded on 35 U.S.C. 102(b), not 103, but our conclusions have a certain pertinence here. We concluded, *id.* at 1134, 301 F.2d at 936, 133 USPQ at 372:

We think it is sound law, consistent with the public policy underlying our patent law, that before any publication can amount to a statutory bar to the grant of a patent, its disclosure must be such that a skilled artisan could take its teachings in *combination with his own knowledge of the particular art and be in possession of the invention.* \* \* \*

In *In re Brown*, supra, this court discussed *In re Von Bramer*, 29 CCPA 1018, 127 F.2d 149, 53 USPQ 345 (1942), commenting that that opinion should not be construed to encompass what had come to be called the "Von Bramer doctrine." There we stated, 51 CCPA at 1257, 329 F.2d at 1009, 141 USPQ at 247:

\* \* \* This doctrine, which appears to have resulted from *In re Von Bramer et al.*, supra, seems over a period of years to have been tailored in some quarters to a principle which defeats the novelty of a chemical compound on the basis of a mere printed conception or a mere printed contemplation of a chemical "compound" *irrespective of the fact that so-called "compound" described in the reference is not in existence or that there is no process shown in the reference for preparing the compound, or that there is no process known to a person having ordinary skill in the relevant art for preparing the compound.* In other words, a mere formula or a mere sequence of letters which constitute the designation of a "compound," is considered adequate to show that a compound in an application before the Patent Office, which compound is designated by the same formula or the same sequence of letters, is old. We do not think that the *Von Bramer* case should be so construed. [Emphasis added.]

To the extent that anyone may draw an inference from the *Von Bramer* case that the *mere* printed conception or the *mere* printed contemplation which constitutes the designation of a "compound" is sufficient to show that such a compound is old, regardless of whether the compound is involved in a 35 U.S.C. 102 or 35 U.S.C. 103 rejection, we totally disagree. \* \* \* [Footnotes omitted.]

We concluded, relying on *In re Le Grice*, supra, and *E. I. du Pont de Nemours & Co. v. Ladd*, 328 F.2d 547, 140 USPQ 297 (D.C. Cir. 1964), that the "true test of any prior art relied on to show or suggest that a chemical compound is old, is whether the prior

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art is such as to place the disclosed 'compound' in the *possession of the public.* " 51 CCPA at 1259, 329 F.2d at 1011, 141 USPQ at 249.

While *In re Le Grice* was bottomed on an issue arising under 35 U.S.C. 102 where the reference was a "printed publication," that test, in our view, is also properly applicable to issues arising under 35 U.S.C. 103. See *In re Brown*, supra (pertinent portion quoted above); *Deutsche Gold-Und Silber-Scheideanstalt v. Commissioner*, 251 F.Supp. 624, 629-630, 148 USPQ 412, 416 (D.D.C. 1966), affirmed, \_\_\_ F.2d \_\_\_, 157 USPQ 549 (D.C. Cir. 1968).

[6] Thus, upon careful reconsideration it is our view that if the prior art of record fails to disclose or render obvious a method for making a claimed compound, at the time the invention was made, it may not be legally concluded that the compound itself is in the possession of the public.<sup>8</sup> In this context, we say that the absence of a known or obvious process for making the claimed compounds overcomes a presumption that the compounds are obvious, based on close relationships between their structures and those of prior art compounds.

The second aspect of the questions presented by this rehearing involves the issue of whether the burden is on the Patent Office to provide the evidence on which to predicate process obviousness.

35 U.S.C. 101 states, in its preamble, that an applicant is *entitled* to a patent *unless* certain patent-defeating provisions are met. The substantive patent-defeating provisions are encompassed in 35 U.S.C. 100-103.

[7] As we have stated, the Patent Office search resulted in citation of the De Boer reference which, under the prevailing law, rendered appellant's claimed compounds *prima facie* obvious. In other words, its citation shifted to appellant the burden of going forward with contrary evidence. Appellant filed the affidavit of Dr. Wiley which points out as a fact that De Boer—the only reference being relied on—does not disclose a process for producing the different compounds here claimed.

We think that portion of the Wiley affidavit set forth, *supra* note 6, states facts which were legally sufficient to overcome the position of the Patent Office as to the legal effect under section 103 of the De Boer reference. <sup>2</sup>Appellant's responsibility to overcome this reference as a "patent-defeating" reference under section 103 at that point in the prosecution was only to overcome De Boer as a reference pertinent to the issue of obviousness under section 103.

We think the Wiley affidavit is clearly sufficient for this purpose. The affidavit points out that there is no indication in the De Boer patent that the fermentation process used to produce De Boer's compounds could be used to produce appellant's compounds. Since we are of the view that the method for making the compounds is an integral part of the "invention as a whole" which we must consider under section 103, we conclude that the burden of going forward with proofs to support its position as to obviousness of the claimed invention shifted to the Patent Office upon appellant's filing of the Wiley affidavit.

The failure of the Patent Office to produce such evidence requires that the decision of the board be *reversed*.

WORLEY, Chief Judge, did not participate.

### Footnotes

Footnote 1. Claim 1 in Serial No. 30,770, filed May 23, 1960, for "9-D-Psicofuranosylpurine and 6-Substituted Derivatives." Claims 2 and 11-25 stand allowed.

Footnote 2. Patent No. 3,094,460, issued June 18, 1963 on an application filed January 20, 1959.

Footnote 3. Appellant, in effect, admits that there is such a "structural similarity" between his claimed compounds and the prior art compounds as to raise an "inference of fact" that they are not patentable within the meaning of 35 U.S.C. 103. See *In re Papesch*, 50 CCPA 1084, 315 F.2d 381, 137 USPQ 43 (1963); *In re Victor Mills*, 47 CCPA 1185, 281 F.2d 218, 126 USPQ 513 (1960).

Footnote 4. Such a showing often has been treated by this court as overcoming a case of "prima facie obviousness" or the "inference of fact" that the compounds are obvious. See, e.g., *In re Papesch*, *supra* note 3 and cases cited therein.

Footnote 5. For the applicability of *In re Brown*, *supra*, to other factual contexts, see *In re Bird*, 52 CCPA 1290, 1294, 344 F.2d 979, 982, 145 USPQ 418, 420 (1965); *In re Sheppard*, 52 CCPA 859, 864, 339 F.2d 238, 242, 144 USPQ 42, 45 (1964); *Dix-Seal Corp. v. New Haven Trap Rock Co.*, 236 F.Supp. 914, 921, 144 USPQ 57, 64 (D.C. Conn. 1964).

Footnote 6. After setting forth his qualifications and stating that he had read and understood both appellant's application and the prior art patent, Dr. Wiley stated:

THAT, 6-amino-9-D-psicofuranosylpurine is a systematic name for "psicofuranine" which is disclosed in column 6, lines 46-62 of the aforesaid patent;

THAT, according to the aforesaid patent, 6-amino-9-D-psicofuranosylpurine is produced by a fermentation process involving the action of a specific micro-organism, *S. hygroscopicus* var. *decoyinine*, in certain aqueous nutrient media;

THAT, *there is no indication in the aforesaid patent [De Boer] that the aforesaid fermentation process could be used to produce 6-lower-alkylamino-9-D-psicofuranosylpurines, 6-di-lower-alkylamino-9-D-psicofuranosylpurines, or other 6-substituted-amino-9-D-psicofuranosylpurines;*

THAT, he does not believe the aforesaid fermentation process could be adapted to the production of the aforesaid 6-lower-alkylamino-9-D-psicofuranosylpurines, 6-di-lower-alkylamino-9-D-psicofuranosylpurines, or other 6-substituted-amino-9-D-psicofuranosylpurines;

THAT, *the aforesaid 6-amino-9-psicofuranosylpurine could not be transformed by direct chemical substitution of the 6-amino group to a 6-lower-alkylamino-9-D-psicofuranosylpurine, a 6-di-lower-alkylamino-9-D-psicofuranosylpurine, or other 6-substituted-amino-9-D-psicofuranosylpurines, and that such transformations could be carried out only by a complex multi-step procedure such as that described in the aforesaid patent application Serial No. 30,770. [Emphasis added.]*

Footnote 7. To this extent, appellant has misstated his argument. That process obviousness is relevant in this context is clear from *In re Riden*, supra. See also *In re Chapman*, 53 CCPA 978, 357 F.2d 418, 148 USPQ 711 (1966); *In re Burt*, 53 CCPA 929, 356 F.2d 115, 148 USPQ 548 (1966); *In re Schechter*, 40 CCPA 1009, 205 F.2d 185, 98 USPQ 144 (1963).

We think appellant really means to say that the question is whether a claimed compound may be said to be legally obvious when no process for making that compound is shown in the prior art relied upon to establish legal obviousness under section 103.

Footnote 8. In *Phillips Petroleum v. Ladd*, 219 F.Supp. 366, 138 USPQ 421 (D.D.C. 1963), in considering a rejection arising under 35 U.S.C. 102, the District Court agreed with this court that the mere naked statement of the invention does not put anyone in possession of the invention. That court was careful to note that no process had been shown in the reference for preparing the compound and that no process was known to one of ordinary skill in the art for preparing the compound.

In *Ex parte Wall*, 156 USPQ 95 (P.O. Bd. App. 1964), the board considered a rejection under 35 U.S.C. 102 of a claim reading "Perfluorostyrene." In reversing the examiner, the board commented that the examiner did not contend that the reference disclosed how perfluorostyrene is made, nor did he point to any extraneous evidence which would indicate that those skilled in the art knew how to make that compound.

Footnote 9. We think this approach to be eminently fair to all parties and in accord with the opinion of the Supreme Court in *Graham*, in its requiring that all of the pertinent evidence be considered while yet leaving the primary responsibility for sifting out unpatentable material with the Patent Office, *Graham v. John Deere Co.*, 383 U.S. 1 at 18, 148 USPQ at 467.

It would be practically impossible for an applicant to show that all known processes are incapable of producing the claimed compound.

### Dissenting Opinion Text

#### Dissent By:

KIRKPATRICK, Judge, dissenting.

I am unable to agree with the result reached by the majority. The reasons for my dissent appear in the overruled opinion *In re Hoeksema*, 54 CCPA 1618, 379 F.2d 1007, 154 USPQ 169 (1967).

Footnote \* Senior District Judge, Eastern District of Pennsylvania, sitting by designation.

**- End of Case -**

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**Print-Friendly  
Version** 

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**FULL TEXT OF CASES (USPQ FIRST SERIES)**

In re Sasse, Beck, and Eue, 207 USPQ 107 (CCPA 1980)

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**In re Sasse, Beck, and Eue**

**(CCPA)**

**207 USPQ 107**

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**Decided July 17, 1980**

**As amended Aug. 26, 1980**

**No. 80-503**

**U.S. Court of Customs and Patent Appeals**

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**Headnotes**

**PATENTS**

**1. Interference -- In general (§ 41.01)**

**Interference -- Practice (§ 41.60)**

35 U.S.C. 135(b) operates as statute of limitations on copying claims for purpose of instigating interferences.

**2. Interference -- In general (§ 41.01)**

**Interference -- Practice (§ 41.60)**

Procedural statutory bar arises under 35 U.S.C. 135(b) proscribing instigation of interferences after specified interval, but substantive bar is not raised in ex parte context.

**3. Interference -- In general (§ 41.01)**

**Pleading and practice in Patent Office -- Rejections (§ 54.7)**

Nothing in *In re Hanna*, 58 USPQ 393, supports use of Section 135(b) as statutory grounds for ex parte rejection as distinguished from rejection based on reference; claims that are same as, or for substantially same subject matter as, claims of issued patent are presented for purpose of provoking interference proceedings; parties must be claiming same or substantially same subject matter in interferences; claims to genus and claims to species within it are not claims to same or substantially same subject matter in sense of 35 U.S.C. 135(b).

#### **4. Patentability -- Anticipation -- Publications -- In general (§ 51.2271)**

Proper test of description in publication as bar to patent as clause is used in 35 U.S.C. 102(b) requires determination of whether one skilled in art to which invention pertains could take description of invention in printed publication and combine it with his own knowledge of particular art and from this combination be put in possession of invention on which patent is sought; description in printed publication is inadequate as statutory bar to patentability under Section 102(b) unless this condition prevails.

#### **5. Pleading and practice in Patent Office -- Evidence (§ 54.5)**

##### **Pleading and practice in Patent Office -- Rejections (§ 54.7)**

Whether those skilled in art already possessed necessary precursors is issue subject to shifting burden of proof; burden was shifted to applicant when Patent Office cited disclosure that expressly anticipated invention; applicant had to rebut presumption of operability of reference by preponderance of evidence; burden was then on Patent Office to rebut applicant's contention of nonenablement.

##### **Particular patents -- Urea Compounds**

Sasse, Beck, and Eue, Dichlorothiazolyl Urea Compounds and Herbicidal Compositions, rejection of claims 1-13 affirmed in part.

#### **Case History and Disposition:**

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Appeal from Patent and Trademark Office Board of Appeals.

Application for patent of Klaus Sasse, Gunther Beck, and Ludwig Eue, Serial No. 459,158, filed Apr. 8, 1974. From decision rejecting claims 1-13, applicants appeal. Affirmed in part.

#### **Attorneys:**

James F. Woods and Leonard Horn, both of New York, N.Y., for applicants.

Joseph F. Nakamura (Gerald H. Bjorge, of counsel) for Commissioner of Patents and Trademarks.

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**Judge:**

Before Markey, Chief Judge, Rich, Baldwin, and Miller, Associate Judges, and Re, Judge. \*

**Opinion Text**

**Opinion By:**

Rich, Judge.

This appeal is from the decision of the United States Patent and Trademark Office (PTO) Board of Appeals (board) affirming the rejections of claims 1-13 in appellants' application serial No. 459,158, filed April 8, 1974, for "Dichlorothiazolyl Urea Compounds and Herbicidal Compositions," under 35 USC 102(b) as being anticipated by a prior art reference and 35 USC 135(b) as being statutorily barred by a prior art reference from which claims could have been copied. We reverse the rejection under 35 USC 135(b). We affirm the rejection under 35 USC 102(b).

***The Invention***

Appellants disclose that certain allegedly novel dichlorothiazolylurea (DCT urea) compounds exhibit herbicidal activity. These active compounds are stated to be particularly suitable for selectively combatting pre-emergent weeds in corn, cereals, cotton, and carrots. These compositions may be applied at a rate of between 0.1 to 15 kilograms/hectare (kg/ha) either before or after weeds appear. But as total herbicides they are supposedly effective only in the larger concentrations by means of a post-emergent application.

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The two Guillot patents are essentially identical, one the reissue of the other, and were treated by the board as one reference. Guillot discloses the use of 2-amino-4,5-dichloro thiazole (2-amino DCT) as a precursor for reaction with an alkyl isocyanate or a substituted carbamyl halide to produce N-2(4,5-dichlorothiazolyl) N, N'-dialkyl or N' alkyl ureas (DCT dialkyl or alkyl ureas), a herbicidal compound. The following syntheses are expressly set forth:

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and

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No method of preparing 2-amino DCT is disclosed by either Guillot patent.

Bachman does not relate to urea compounds at all. The disclosure describes the synthesis of certain halogenated 2-(2-thiazolyl) aminofuran-5-ones. But 2-amino DCT is specifically mentioned as a suitable reactant for the production of these compounds.

***The Declaration Evidence***

During examination, one of the inventors, Sasse, twice submitted declarations to over-come the rejection by the examiner under 35 USC 102(b). In the first declaration, he stated:

7. That based upon his own experience, 2-amino-4,5-dichlorothiazole is not obtainable from trichlorothiazole and ammonia. Rather, when trichlorothiazole and ammonia, dissolved in any ordinary solvent, such as ethanol, toluene, dioxan, tetrahydrofuran or dimethylformamide, are heated under normal pressure up to 100°C, no reaction at all occurs. When trichlorothiazole and ammonia, dissolved in, e.g., toluene or dioxan, are heated up to 150°C under pressure (of, e.g., about 10 atmospheres), only an almost black, tarry, and unidentifiable mass is formed from which no clear product can be isolated.

Furthermore, he declared that although Bachman mentions 2-amino DCT, no reference shows a method of preparing it.

In a second declaration, the necessary Guillot precursors were stated to be 2-methylamino or 2-ethylamino DCT. These compounds were alleged to be necessary to produce the alkylated DCTs which are claimed.

Guillot supposedly found that all compounds of the general formula

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(X being -NCH<sub>3</sub>©, -N-alkyl-, -S-, or -O-) were very unstable in an alkaline medium.

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Thus the 2-methylamino and 2-ethylamino DCTs disclosed by Sasse were supposedly rapidly converted into a tarry mass by an alkaline medium.

### The Rejections

In his final office action and Answer, the examiner rejected appellants' claims on two statutory bases: 35 USC 102(b) <sup>1</sup>because they are anticipated by a compound specifically disclosed by Guillot, and 35 USC 135(b), <sup>2</sup>because they are directed to "the same subject matter as claims" of Guillot.

Appellants' response to the §102(b) rejection was that the Guillot compound relied on was not supported by an enabling disclosure -- that one of ordinary skill in the art could not make it. The examiner's response was that modifications of the general synthetic procedures in Guillot would yield the alkyl DCT ureas explicitly mentioned by the patentee and claimed by appellants. Specifically, methylamine would be substituted for ammonia in a reaction with 2,4,5-trichlorothiazole (TCT) to produce the necessary 2-methylamino DCT precursor:

*Graphic material consisting of a chemical formula or diagram set at this point is not available. See text in hard copy or call BNA PLUS at 1-800-452-7773 or 202-452-4323.*

The examiner contended that the Sasse affidavits did not affect the presumed operability of the methylamine modification, that one skilled in the art would expect the methylamine reaction to proceed even if a similar reaction with ammonia was inoperable.

On the §135(b) rejection, the examiner said applicants' claims were for the "same subject matter" as Guillot's claims and were barred by 35 USC 135(b) because not presented within one year of the issuance of Guillot's patent. The examiner found the *generic* claims in Guillot to "embrace" the same subject matter as appellants' species claims even though none of the patentees' species claims was directed to appellants' claimed compounds.

## **Board Decision**

The board noted that appellants' burden is to prove that Guillot and Bachman were not enabling disclosures, more particularly that 2-amino DCT "cannot be [sic, could not have been] produced by one of ordinary skill in the art." Ammonolysis of a halide was declared to be well known, the conditions varying according to the starting halide. Citing Wagner and Zook, <sup>3</sup>a new reference, heterocyclic amines were stated to be generally prepared by ammonolysis of the halide over a copper catalyst.

The Sasse declarations were found to lack any factual basis for concluding that one of ordinary skill in the art could not have made the needed precursor. Without more proof that the disclosures were nonenabling, the board sustained the §102(b) rejection.

The statutory bar of 35 USC 135(b) was held to govern the time allowed for either "copying the patent claims," as in an interference context, or for "receiving claims which do not patentably distinguish over the claims" of the reference. In re Hanna, 30 CCPA 1115, 136 F.2d 749, 58 USPQ 393 (1943). The board said:

Claim 1 of Guillot et al. encompasses, includes and contains the subject matter of the claims before us. The fact that it is drawn to generic subject matter does not obviate the fact that it encompasses the same subject matter of the appealed claims. The assertion of narrower claims which are encompassed by claim 1 of the patent and disclosed therein cannot avoid estoppel. It is clear from Guillot et al. that the specific 4,5-dichloro derivatives are included in the invention described and claimed by patentees. In re Schaumann et al., 572 F.2d 312, 197 USPQ 5; In re Samour, 571 F.2d 559, 197 USPQ 1.

Appellants concede priority of the generic invention to Guillot et al. but urge

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that this could not have meant concession of priority to the specifically claimed thiazole compounds. Clearly, priority of such compounds could have been determined in interference proceedings. Appellants failed to provoke an interference within the time set forth in 35 USC 135(b) and hence are estopped from obtaining claims to the same or substantially the same subject matter claimed and described by Guillot et al.

Whether or not 35 USC 135(b) is considered to be procedural or substantive in nature (In re McKellin, 529 F.2d 1324, 188 USPQ 428), *we do not view this section of the statute as an alternative for a rejection which is properly based under 35 USC 102.* [Emphasis ours.]

What the board meant by the last emphasized phrase, though clear on its face, nevertheless becomes obscure in the light of what it said in its opinion on reconsideration.

## **On Reconsideration**

In view of its reliance on the newly-cited Wagner and Zook reference in affirming the examiner's §102(b) rejection, the board admitted that a new rejection had been made under the provisions of 37 CFR 1.196(b), which it had not mentioned. It offered appellants the options available to them under Rule 196(b). They elected to appeal here.

On the §135(b) rejection, the board said:

To whatever extent our decision regarding the affirmance of the rejection made under 35 USC 135(b) is ambiguous, we point out that we unequivocally stated that appellants are estopped from obtaining the claimed subject matter. 35 USC 135 provides the statutory basis for the rejection on the basis of statutory estoppel by reason of laches. In *re Frey*, 37 CCPA 1052, 182 F.2d 184, 86 USPQ 99. Under the liberal practice of declaring an interference, an interference could have been declared if the request had been submitted within the statutory time. Appellants failed to request the declaration of an interference. Accordingly, the rejection under 35 USC 135(b) is both proper and correct.

The request for reconsideration is granted to the extent that we have reconsidered our decision in light of appellants' arguments. Our decision is modified to the extent that our affirmance of the rejection of the claims under 35 USC 103 [sic, the PTO concedes the board intended §102] based upon additional art is denominated as a new rejection under 37 CFR 1.196(b). Our conclusion that the claims were properly rejected under 35 USC 135(b) remains unaltered and no further reconsideration with respect thereto will be entertained.

### Opinion

#### 35 USC 135(b)

[1] We set forth the judicial and legislative history of 35 USC 135(b) at length in *Corbett v. Chisholm*, 568 F.2d 759, 196 USPQ 337 (CCPA 1977). Essentially, this section operates as a statute of limitations on copying claims for the purpose of instigating interferences.

[2] The solicitor states, "there can be no serious doubt at this time that 35 USC 135(b) operates to effect a kind of statutory bar, estoppel or loss of right." We agree that a *procedural* statutory bar arises proscribing the instigation of interferences after a specified interval. But we do not agree that a substantive bar is raised by §135(b) in an *ex parte* context. The Commentary on the New Patent Act by P.J. Federico, 35 USCA at 37-38, is in accord in stating, "The sections just mentioned, 131 to 135, deal with *procedure* in the Patent Office, of which only a small part is reflected in the statute." (Emphasis added.) This statement complements our decision in *In re McKellin*, 529 F.2d 1324, 188 USPQ 428 (CCPA 1976), where §135(a) was also found to be procedural in nature.

During oral argument, the solicitor failed to show one instance in which this or any other court has approved the use of §135(b) as a substantive ground for rejection. He, like the board, mistakenly relied on *In re Hanna*, *supra*, to support such a proposition.

[3] We have carefully reviewed the 1943 *Hanna* opinion and find nothing whatever in it to support the use of §135(b) as a statutory ground of *ex parte* rejection, as distinguished from a rejection based on a reference. The argument ignores the context of the paragraph relied on, which is a part of the one section of the statute dealing with the declaration and deciding of *interferences* and their effects, not the patentability of inventions. Section 135 is entitled "Interferences." (Compare the titles of §§101, 102, and 103.) The Revisers' Note to §135 states that

The second paragraph [originally unlettered, now "(b)" by amendment] is based on title 35, U.S.C., 1946 ed., §51 (R.S. 4903, amended Aug. 5, 1939, ch.

[5] Whether those skilled in the art already possessed the necessary precursors is an issue subject to a shifting burden of proof. To explain, when the PTO cited a disclosure which expressly anticipated the present invention, i.e., Guillot, the burden was shifted to the applicant. He had to rebut the presumption of the operability of Guillot by a preponderance of the evidence. In re Jacobs, 50 CCPA 1316, 318 F.2d 743, 137 USPQ 888 (1963). Appellants attempted to meet that burden by demonstrating that one skilled in the art would have been unable to produce the necessary precursors. The Sasse declarations (Sasse) have been relied on to show that conventional ammonolysis of a heterocyclic halide would have been a total failure; either TCT would fail to react with

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ammonia, it is said, or it would yield a useless, tarry mass.

The burden of proof was once more upon the PTO to rebut the Sasse contention of non-enablement. See In re Payne, 606 F.2d 303, 203 USPQ 245 (CCPA 1979). The board successfully did this in its new §196(b) rejection. Wagner and Zook clearly stated that heterocyclic amines, i.e., 2-methylamino and 2-amino DCT, were "quite often" prepared in that manner.

In this forum, the burden again rests on appellants who continue to rely on Sasse. They argue that Wagner and Zook failed to adequately manifest how 2-amino DCT could be prepared, and, therefore, does not rebut Sasse. We disagree.

One can reasonably conclude from the unambiguous assertions in Wagner and Zook that the needed Guillot precursors were capable of being synthesized by one skilled in the art and hence were in the public's possession. It was incumbent upon appellants to rebut the presumed operability of the copper catalyst method described in Wagner and Zook. As did the board, we find the Sasse declaration devoid of any persuasive factual bases for dismissing the proposed catalytic synthesis. Sasse does not employ any copper catalyst in the attempted preparation of the precursors. We therefore hold that Guillot, in view of the evidence in Wagner and Zook, contains an enabling disclosure of at least one compound which anticipates the present claims.

### Summary

Accordingly, the decision of the board affirming the rejection of claims 1-13 under 35 USC 135(b) is *reversed* and the decision of the board affirming the rejection of claims 1-13 under 35 USC 102(b) is *affirmed*.

*Affirmed.*

### Footnotes

**Footnote 1.** A person shall be entitled to a patent unless -- \* \* \* \* (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, \* \* \*.

**Footnote 2.** Interferences \* \* \* \* (b) A claim which is the same as, or for the same or substantially the same subject matter as, a claim for an issued patent may not be made in any application unless such a claim is made prior to one year from the date on which the patent was granted.

**Footnote 3.** R. Wagner and H. Zook, Synthetic Organic Chemistry 666 (1953), states (footnotes omitted): Heterocyclic amines are quite often prepared by ammonolysis of the halides over a copper catalyst. The halogen atom in 9-chloroacridine is easily replaced by an amino group by heating to 120° with ammonium carbonate and phenol. Similarly, 2-chlorolepidine is converted to 2-aminolepidine (2-amino-4-methylquinoline)(78%).

Footnote 4. Proposed Revision and Amendment of the Patent Laws, Preliminary Draft with Notes, Committee Print, Committee on the Judiciary, House of Representatives, Jan. 10, 1950.

Footnote \* The Honorable Edward D. Re, Chief Judge, United States Customs Court, sitting by designation.

**- End of Case -**

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R.S. 4903 was a statute dealing with the examination of applications by the Patent Office and responses thereto by applicants. Its pertinent part here was the second paragraph, effective Aug. 5, 1940, which read:

No amendment for the first time presenting or asserting a claim which is the same as, or for substantially the same subject matter as, a claim of an issued patent may be made in any application unless such amendment is filed within one year from the date on which said patent was granted.

Referring to that paragraph, the first draft of the 1952 Patent Act <sup>4</sup>stated under "Chapter 5. Interferences," §44, that the paragraph "is transposed from R.S. 4903 \* \* \* as being more appropriate under interferences." This is obviously so, since claims which are the same as, or for substantially the same subject matter as, claims of an issued patent are presented for the purpose of provoking interference proceedings. In interferences, the parties must be claiming the same or substantially the same subject matter. The PTO has shown no such situation to exist here but seems to rely on the fact that Guillot has broad claims which would "read on" or dominate appellants' claims. Claims to a genus and claims to species within it are not claims to the same or substantially the same subject matter in the sense of §135(b). Laying aside all the questions of time or delay, there has been no suggestion that appellants want, or could have, an interference. Section 135(b) is not applicable. The board was closer to the law when it said at the end of its first opinion that "we do not view this section [§135(b)] of the statute as an alternative for a rejection which is properly based under 35 USC 102."

As for the Hanna case, the whole discussion in the opinion relates to whether Hanna, having copied two of the three appealed claims from Anderson's patent after a delay of at least four years after it issued, had any basis for contending that he had been claiming substantially the same subject matter within two years of its issuance, under the law then obtaining as set forth in *Chapman v. Wintroath*, 252 U.S. 126 (1920). The court held that he had no basis for so contending. The decision and opinion in Hanna has no bearing on the issue here.

### **35 USC 102(b)**

The second issue is whether Guillot anticipates the appealed claims. More particularly, did Guillot enable one skilled in the art at the time the invention was made to employ either the 2-methylamino or 2-amino DCT precursors in the explicitly disclosed reaction sequences which allegedly yield the claimed dialkyl and alkyl DCT ureas?

[4] The requirement that a §102(b) reference be an enabling disclosure was discussed by this court, interestingly, in a plant patent case, *In re LeGrice*, 49 CCPA 1124, 301 F.2d 929, 133 USPQ 365 (1962), but the principles are not limited to plant patents. The following excerpt continues to be the proper standard for determining whether there is enablement.

\* \* \* the proper test of a description in a publication as a bar to a patent as the clause is used in section 102(b) requires a determination of whether one skilled in the art to which the invention pertains could take the description of the invention in the printed publication and combine it with his own knowledge of the particular art and from this combination *be put in possession of the invention on which a patent is sought*. Unless this condition prevails, the description in the printed publication is inadequate as a statutory bar to patentability under section 102(b). [Emphasis ours.]

See *In re Samour*, 571 F.2d 559, 197 USPQ 1 (CCPA 1978).